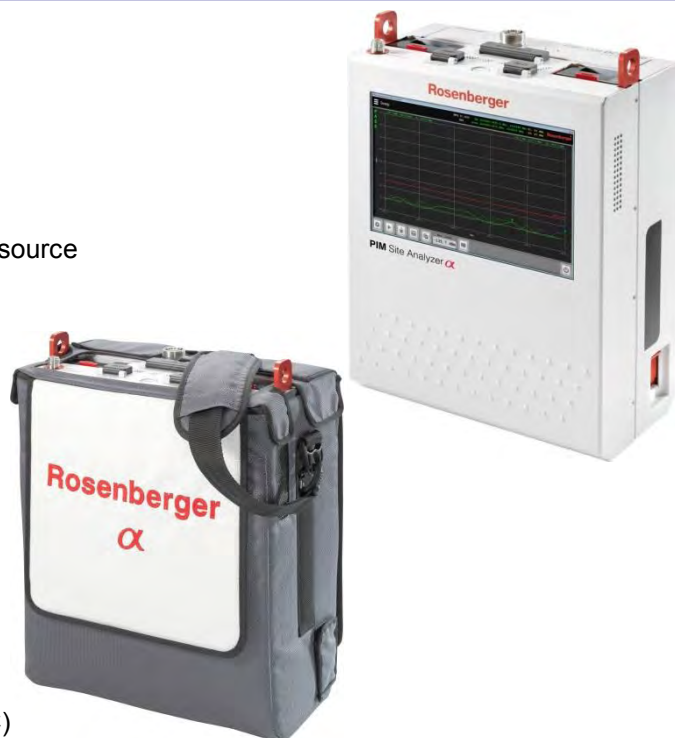


**PIM SITE ANALYZER α
BASE UNIT**

IM-B-BU-0727

Main Features

- Broadband RX & TX base model 698-2700 MHz with field replaceable band filter units
- Outstanding PIM performance (typ. < -130dBm)
- PIM location accuracy < 0.3m, all bands
- Continuous wave signal (no pulse), conformity with IEC 62037 – 1, full power to PIM source
- No calibration on Site
- Intuitive Software Operation
- Automated Report Generation
- Integrated Spectrum Analyzer
- DTF measurement
 - o PIM vs. Distance
 - o VSWR vs. Distance
- Measurement Modes
 - o Passive Intermodulation:
 - PIM vs. Frequency
 - PIM vs. Time
 - o VSWR/Return loss under high RF power
 - o RF Spectrum Analyzer
 - o Isolation Measurement
- Battery operation (optional external 110/230V AC)
- Remote control via WiFi with waterproof tablet (optional), or LAN
- CPRI PIM Tests (HW ready, option for later SW release)



General

Display
Dimensions
Weight
RF Ports
Filter
Base Unit

12.1" Touch screen, readable in direct sunlight
410 × 327 × 173 (L×W×H)
< 13.4 kg, including batteries

User Interface Ports
Power Supply
Battery Life
Frequency Stability

7/16 DIN (F) Test port (4.3/10 DIN on request),
P-SMP interconnect to Filter, N-Type (F) Isolation
SMP (M) 10MHz Reference input
2×USB, LAN
Battery Powered or AC Mains supply (ext.)
120 min (typical use, non-pulsed CW measurement)
± 2.5 ppm

PIM Analyzer RF (Base Unit)

IM Order
Output Power

3rd, 5th, 7th, 9th, 11th, 13th, 15th, 17th
26 – 49 dBm
equals 23 – 46 dBm at Testport
< -125 dBm (< -168 dBc @ 2x +43 dBm)
< -130 dBm (< -173 dBc @ 2x +43dBm) typ.

Residual PIM

PIM vs. Distance
Accuracy / Resolution

< 0.3m , all bands
Depends on number of PIM sources
and accuracy of cable velocity factor
down to -120dBm PIM, 0 – 150m
698 ... 2700 MHz
Changeable to frequency bands

Range
Frequency range (seamless)
Filter Units

**PIM SITE ANALYZER α
BASE UNIT****IM-B-BU-0727****PIM Analyzer CPRI (SW Option)****Fiber interface**

CPRI up to Rate 7

SFPs field replaceable

IM Order3rd, 5th, 7th**Carrier types**

LTE5, LTE10, LTE20, (LTE15 on request)

PIM Range

-130 dBm noise floor (depends on RRH NF & Bandwidth)

Isolation Measurement RF**Frequency**

Downlink frequency band of filter unit

RF Output

+23 - 46 dBm

RF Input

+27 dBm max operating

+30 dBm max no damage

+50 VDC max no damage

Isolation

0 – 60 dB

Accuracy

1.5 dB

Resolution

0.1 dB

VSWR / Return Loss RF**Frequency**

Downlink frequency band of filter unit

VSWR

1.10 – 20.00

Return Loss

1.00 – 25.00 dB

Distance to VSWR fault**Accuracy / Resolution**

0.2 m (typ)

Depends on number of mismatch sources

and accuracy of cable velocity factor

Range

0 – 150 m

Spectrum Analyzer RF**Frequency**

Uplink frequency band of filter unit

Resolution Bandwidth

120 Hz to 20 MHz RBW

Noise Floor

-135 dBm DANL at 1 kHz

Amplitude Accuracy

± 1.0 dB typ, ± 1.5 dB max

RF Input

-40 dBm max operating

+10 dBm max no damage

Environmental**Operating Temperature Range**

-10°C to + 40°C

Storage Temperature Range

-20°C to +80°C

Relative Humidity

5% to 95% RH non-condensing

User Interfaces**Keyboard/USB-Memory**

2 × USB A connector

Remote Control

1 × LAN, WiFi (802.11abgn), 1 × Micro-USB B connector

Reference

1 × SMP 10 MHz

CPRI

2 × SFP

Isolation

Out: Depends on Filter (7/16 or 4.3/10), In: N-Type

Supply

1 × DC magnetic connector

**PIM SITE ANALYZER α
BASE UNIT****IM-B-BU-0727****Accessories**

	Part Number	Description
Useful α Accessories	IM-B-ACSRy-Bag-BU	Carrying bag for Base Unit
	IM-A-BU-Bat	Battery Pack
	IM-B-ACSRy-Backpack	Backpack for accessories
	IM-B-ACSRy-Case-BU	Transportation case for Base Unit
α Spare Parts	60S101-KIMN1	7/16 Testport Saver for use on α Filter
	60S164-K00N1	4.3/10 Testport Saver for use on α Filter
Low PIM Adaptors	60S101-KIMN1	7/16 Male to 7/16 Female adapter
	60S101-SIMN1	7/16 Male to 7/16 Male adapter
	60K101-KIMN1	7/16 Female to 7/16 Female adapter
	60S153-KIMN1	7/16 Male to N Female adapter
	53S160-KIMN1	7/16 Female to N Male adapter
	60S164-K00N1	7/16 Male to 4.3/10 Female adapter
	60S164-S00N1	7/16 Male to 4.3/10 Male adapter
	60K164-S00N1	7/16 Female to 4.3/10 Male adapter
PIM Standards	60S110-KxxN1	-110dBm standard adapter (band specific) included with every filter unit (7/16 DIN Type)
	64S110-KxxN1	-110dBm standard adapter (band specific) included with every filter unit (4.3/10 DIN Type)
	xx: 07 LTE700; 08 DigDiv AMPS; 09 EGSM; 18 DCS; 19 PCS/AWS; 21 UMTS; 26 LTE2600; other frequencies on request	
Low PIM Terminations	60Z150-020	Low PIM termination (portable, with male & female ports, 7-16)
	60Z150-012	Low PIM termination (Benchtop type, 7-16)
	IM-Load-Site-4.3-10	Low PIM termination (Benchtop type, 4.3-10)
Tools	60W000-002	32mm torque wrench
	53W010-000	18mm torque wrench
	99W057-000	Adjustable flat wrench
Test Cables	LC02-186-4000	Test Cable 7/16 male / 7/16 male 4.0m
	LC02-186-1500	Test Cable 7/16 male / 7/16 male 1.5m
	LC02-188-4000	Test Cable 7/16 male / N male 4.0m
	LC02-188-1500	Test Cable 7/16 male / N male 1.5m
	SLJ12SP-60M64M-2.0m-00	Test Cable 7/16 male / 4.3/10 male 2.0m
	SLJ12SP-64M64M-2.0m-00	Test Cable 4.3/10 male / 4.3/10 male 2.0m
Super Flex Test Cables	IM-Cable-716m-716m-3000	Test Cable 7/16 male / 7/16 male 3.0m
	IM-Cable-716m-4310m-3000	Test Cable 7/16 male / 4.3/10 male 3.0m
	IM-Cable-4310m-4310m-3000	Test Cable 4.3/10 male / 4.3/10 male 3.0m

PIM SITE ANALYZER α BASE UNIT

IM-B-BU-0727

Part Number designation

IM-B-BU-xxxx

xxxx: 0727:

Base Unit

700-2700MHz Broadband Power Amplifier & Receiver

IM-B-FI-xxxx

xxxx: 700/B12-14:
700/B28:
800/B20:
850/B5:
900/B8:
1400/B11+21
1800/B3:
1900/B2+4:
2100/B1:
2600/B7:

Filter Unit 7/16 Test port

LTE700LU (ETSI Band12 to 14)
APT700 (ETSI Band28)
DigDiv (ETSI Band20)
AMPS (CDMA 800) (ETSI Band5)
EGSM (ETSI Band8)
LTE1400 (ETSI Band11 & 21)
DCS (ETSI Band3)
PCS + AWS (ETSI Band2 & 4)
UMTS (ETSI Band1)
UMTS II / LTE II (ETSI Band7)

IM-B-FI-xxxx-G

xxxx: 700/B12-14-G:
700/B28-G:
800/B20-G:
850/B5-G:
900/B8-G:
1400/B11+21-G
1800/B3-G:
1900/B2+4-G:
2100/B1-G:
2600/B7-G:

Filter Unit 4.3/10 Test port

LTE700LU (ETSI Band12 to 14)
APT700 (ETSI Band28)
DigDiv (ETSI Band20)
AMPS (CDMA 800) (ETSI Band5)
EGSM (ETSI Band8)
LTE1400 (ETSI Band11 & 21)
DCS (ETSI Band3)
PCS + AWS (ETSI Band2 & 4)
UMTS (ETSI Band1)
UMTS II / LTE II (ETSI Band7)

IM-A-SWO-xxxx

xxxx: CPRI

Software option

CPRI Measure and Cancel PIM over CPRI Fiber

IM-B-ACSRY-xxxx

xxxx: Case-BU:
Bag-BU:

Accessory

Transport Case BaseUnit, Energy Supply,
Transport Bag

Order Number Example

IM-B-BU-0727	Base unit with broadband amplifier 700 -2700 MHz, receiver, fiber CPRI unit
IM-A-BU-Bat	Single Battery Pack
IM-B-FI-700/B12-14	Filter Insert for LTE700 Lower and Upper band (ETSI Band12, 13 & 14), 7/16
IM-B-FI-900/B8-G	Filter Insert for EGSM900 (ETSI Band8), 4.3/10
IM-B-ACSRY-Bag-BU	Transport Bag for Base Unit

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
C. Entsfellner	2017-02-08	C. Entsfellner	2017-02-08	200	17-0013	B. Kaendl	2017-12-05
Corporate Headquarters Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O. Box 1260 D-84526 Tittmoning Germany Tel. +49 8684 18-0					Rosenberger Site Solutions, LLC P.O. Box 4268, Lake Charles, LA 70606 Ph.337.598.5250 Fax: 337.598.5290 rlss@rlss.us www.RosenbergerOnline.us		Page 4 of 4